X. A second Asiatic species of Corydalis. By ROBERT McLachlan, F.R.S., ETC.

[Read June 7th, 1899.]

PLATE IX.

In the Proceedings of the Zoological Society of London for 1884, Prof. Wood-Mason described and figured (p. 110, pl. viii) the first Asiatic species of Corydalis, a genus up to then thought to be peculiarly American, from the Naga Hills. Through the kindness of Mr. J. H. Leech, B.A., F.L.S., I am able to describe and figure a second Asiatic species, from Western China, and in the remarks appended to the description are indications that probably a third exists. I saw the specimens described by Prof. Wood-Mason, but did not examine them very critically: they are now in the Calcutta Museum; the description

is unfortunately not sufficiently detailed.

I think it just possible that the Asiatic species may eventually be separated generically from the American. In the former not only is the posterior portion of the head produced into a sharp tooth on each side (as in the American), but there is also an additional sharp tooth (wanting in the American species) on each side of the disk of the head somewhat posteriorly, and the elongated mandibles of the & show indications (more or less slight) of one or two teeth on their inner edge in addition to the minute one just before the apex. But mandibular development is erratic in Corydalis, for it is well known that in some American species the mandibles of the 3 are not more developed than in the 2, whereas in others the difference is only slightly marked, but in the majority very great.

Corydalis orientalis, sp. n.

3 Head very large, subquadrate (without the neck), 13 mm. broad (without the posterior teeth), sides straight, the posterior angles produced into a very strong black acute triangular tooth, anterior edge straight with a deep median semicircular excision, disk convex posteriorly, rugose, on each side of the front of the convex portion is a broad acute black triangular tooth; neck strongly defined (4 mm. long by 7 mm. broad in front), convex: the general TRANS. ENT. SOC. LOND. 1899.—PART III. (SEPT.)

colour may be taken as blackish above, with strongly impressed vellowish markings, the alate lateral expansions yellowish, reticulated with blackish, a large irregularly cuneate reticulated yellowish median space not quite extending to the ocelli, two large (scarcely separated) vellowish spots behind the ocelli, a similar transverse spot before the ocelli (between the antennæ), the external frontal angles also yellowish; neck yellowish above, with its anterior edge, a fine longitudinal median impressed line, and two cuncate lines (not reaching the posterior margin), black: beneath the colour is blackish, the sides yellowish longitudinally marked and reticulated with blackish; orbits yellowish; sub-mentum blackish, very strongly excised, each side produced into a very strong triangular acute tooth; labrum yellow above; maxillæ long black sub-cylindrical, yellow at its apex, the palpi small, black, each joint at its apex, and the first two internally, yellow. Eyes small, olivaceous. Antennæ about half the length of the wings, fine, slender, submoniliform, black, the basal joint with a yellow ring at its apex. Mandibles elongate (21 mm. long, without reckoning the curvature), rather broad, and slightly curved, blackish piceous; the external edge is regular; the basal portion has a broad groove above, and is much flattened and dilated to nearly a third of the whole length, the dilated portion ending in a nearly rectangular tooth on the inner margin; much beyond the middle of this margin there is a second tooth, small and acute, and just before the apex a third, almost spiniform.

Prothorax much narrower than the head, subcylindrical, much longer than broad (13 mm. long, 7.5 mm. broad in the middle and 9.5 posteriorly), its sides nearly parallel, scarcely dilated in front, but considerably so on its posterior edge, with a blunt transverse ridge on each side of its median portion; above blackish, with a median yellowish longitudinal stripe narrowed posteriorly, and somewhat irregular longitudinal lines, forming ill-defined bands on either side: beneath black, with a narrow transverse yellow line anteriorly, and a large yellow spot on each side of the 'neck.' Meso-and meta-thorax black above; on the former the anterior lobe and scutellum marked with yellowish.

Legs blackish, somewhat cinereous; coxæ, trochanters, and base of femora, yellowish beneath.

Abdomen blackish cinereous (colour changed): last dorsal segment deeply grooved above, almost to its base; superior appendages somewhat longer than the segment, parallel, strong, cylindrical, slightly curved downwards; inferior appendages geniculated, the apical portion strongly turned inward (in bad condition).

Wings smoky cinercous, subhyaline; anterior wings with a few

faint paler spaces on the disk; the neuration very strong, black, and all the transverse nervules margined with black, those towards the base very broadly margined; there are also some independent black or blackish spots below the radius, and in the basal portion of the cubital region (this black margining of the nervules gives the wings a peculiar tessellated appearance); in the broad costal area several of the nervules anastomos; in an asymmetrical manner near the costal edge, forming two irregular rows of costal cellules in that portion (this character is evidently irregular, and may probably not always be present); posterior wings as in the anterior, but the nervules are margined only in the apical portion.

Length of body (without the mandibles) about 61 mm. Expanse

of wings about 146 mm. (the tips of the wings damaged).

Hab. Chia-ting-fu, Western China, 1000 ft., May.

(Type Coll. McLachlan.)

This differs very strongly from *C. asiatica*, Wood-Mason, in the structure of the head, thorax, and mandibles, and also in the markings of the body, and the peculiarly tessellated appearance of the wings.

I have a much mutilated male (wings damaged and end of abdomen wanting) from Assam that probably represents a third Asiatic species, more allied to *C. asiatica* * in the form of the mandibles, but with the prothorax longer, even more so than in *C. orientalis*. From the markings on the body it could probably be identified by description, but I prefer to await the

acquisition of a more perfect specimen.

It may not be out of place to remark that this Assam insect was no doubt regarded as a vicious animal by its native captor; its wings were torn off to prevent its escape by flight, and a thread noose (still in situ) was placed round its prothorax, so that it could be led about without fear of coming in contact with its mandibles, these harmless members being no doubt regarded with feelings of dread; the end of the abdomen has apparently been cut off from fear of the appendages or a concealed sting!

* In the Entomologists' Monthly Magazine, vol. xxv, p. 133, I alluded to this specimen as belonging to *C. asiatica*.

EXPLANATION OF PLATE IX. [See explanation facing the Plate.]